

# SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006, as amended by  
Commission Regulation (EU) 2020/878

**P092-K21 hebro®flock S**

Version: 2.11

Revision Date: 16.09.2024

Print Date: 17.09.2024

## SECTION 1: Identification of the substance/mixture and of the company/undertaking

### 1.1 Product identifier

Trade name : P092-K21 hebro®flock S

### 1.2 Relevant identified uses of the substance or mixture and uses advised against

Use of the Sub- : Product for heavy metal precipitation  
stance/Mixture

### 1.3 Details of the supplier of the safety data sheet

Company : hebro chemie- ZN der Rockwood Specialties Group  
GmbH  
Rostocker Str. 40  
41199 Mönchengladbach

Contact person : Zentrale hebro chemie  
Telephone : +49 (0) 2166 6009-0  
Telefax : +49 (0) 2166 6009-99

Contact person product safety : Abteilung Produktsicherheit  
Telephone : +49(0)2166 6009-311  
E-mail address : msds.de@hebro-chemie.de

### 1.4 Emergency telephone number

: Giftinformationszentrum Erfurt:  
+49 (0) 361 730 730

## SECTION 2: Hazards identification

### 2.1 Classification of the substance or mixture

#### Classification (REGULATION (EC) No 1272/2008)

Long-term (chronic) aquatic hazard, Cat- H410: Very toxic to aquatic life with long lasting  
egory 1 effects.

### 2.2 Label elements

#### Labelling (REGULATION (EC) No 1272/2008)

Hazard pictograms :



Signal word : Warning

Hazard statements : H410 Very toxic to aquatic life with long lasting effects.

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Precautionary statements : **Prevention:**  
P273 Avoid release to the environment.  
**Response:**  
P391 Collect spillage.  
**Disposal:**  
P501 Dispose of contents/ container to an approved waste disposal plant.

## 2.3 Other hazards

This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.

Ecological information: This substance/mixture does not contain components considered to have endocrine disrupting properties for environment according to UK REACH Article 57(f).

Toxicological information: This substance/mixture does not contain components considered to have endocrine disrupting properties for human health according to UK REACH Article 57(f).

## SECTION 3: Composition/information on ingredients

### 3.2 Mixtures

Chemical nature : Preparation based on sodium dimethyl dithiocarbamate

#### Components

Chemical name	CAS-No. EC-No. Index-No. Registration number	Classification	Concentration (% w/w)
Sodium-dimethyldithiocarbamate	128-04-1 204-876-7 01-2119543694-32	Aquatic Chronic 1; H410  M-Factor (Chronic aquatic toxicity): 1	>= 25 - < 50

For explanation of abbreviations see section 16.

## SECTION 4: First aid measures

### 4.1 Description of first aid measures

General advice : No hazards which require special first aid measures.  
If symptoms persist, call a physician.

If inhaled : No special precautions required.

In case of skin contact : After contact with skin, wash immediately with plenty of water.

In case of eye contact : In case of eye contact, remove contact lens and rinse imme-

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diately with plenty of water, also under the eyelids, for at least 15 minutes.

If swallowed : Rinse mouth.  
Prevent vomiting if possible.

### 4.2 Most important symptoms and effects, both acute and delayed

Symptoms : No information available.

Risks : No information available.

### 4.3 Indication of any immediate medical attention and special treatment needed

Treatment : Treat symptomatically.

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## SECTION 5: Firefighting measures

### 5.1 Extinguishing media

Suitable extinguishing media : Alcohol-resistant foam  
Carbon dioxide (CO<sub>2</sub>)  
Dry powder  
Water spray jet

Unsuitable extinguishing media : High volume water jet

### 5.2 Special hazards arising from the substance or mixture

Specific hazards during fire-fighting : The product itself does not burn.  
Combustion may cause:

Hazardous combustion products : Carbon oxides

### 5.3 Advice for firefighters

Special protective equipment for firefighters : Wear self-contained breathing apparatus for firefighting if necessary.

Specific extinguishing methods : Use water spray to cool unopened containers.

Further information : Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations.

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## SECTION 6: Accidental release measures

### 6.1 Personal precautions, protective equipment and emergency procedures

Personal precautions : Handle in accordance with good industrial hygiene and safety practice.

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### 6.2 Environmental precautions

Environmental precautions : Inform the relevant authorities if it enters sewers, aquatic environment or soil.

### 6.3 Methods and material for containment and cleaning up

Methods for cleaning up : Contain spillage, soak up with non-combustible absorbent material, (e.g. sand, earth, diatomaceous earth, vermiculite) and transfer to a container for disposal according to local / national regulations (see section 13).  
Keep in suitable, closed containers for disposal.

### 6.4 Reference to other sections

Refer to protective measures listed in sections 7 and 8., For disposal considerations see section 13.

## SECTION 7: Handling and storage

### 7.1 Precautions for safe handling

Advice on safe handling : No special precautions required.

### 7.2 Conditions for safe storage, including any incompatibilities

Requirements for storage areas and containers : No special storage conditions required. Containers which are opened must be carefully resealed and kept upright to prevent leakage.

Further information on storage conditions : Protect from frost.

Advice on common storage : No materials to be especially mentioned.

Recommended storage temperature : 5 - 40 °C

### 7.3 Specific end use(s)

Specific use(s) : Product for heavy metal precipitation

## SECTION 8: Exposure controls/personal protection

### 8.1 Control parameters

#### Occupational Exposure Limits

Contains no substances with occupational exposure limit values.

#### Derived No Effect Level (DNEL) according to Regulation (EC) No. 1907/2006

Substance name	End Use	Exposure routes	Potential health effects	Value
Sodium-dimethyldithiocarbamate		Inhalation	Acute systemic effects	3.442 mg/m <sup>3</sup>
		Inhalation	Long-term systemic effects	1.44 mg/m <sup>3</sup>

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		Skin contact	Acute systemic effects	7.533 mg/kg bw/day
		Skin contact	Long-term systemic effects	123 mg/kg bw/day

### Predicted No Effect Concentration (PNEC) according to Regulation (EC) No. 1907/2006

Substance name	Environmental Compartment	Value
Sodium-dimethyldithiocarbamate	Fresh water	0.0078 mg/l
	Marine water	0.00078 mg/l
	Intermittent use/release	0.025 mg/l
	Sewage treatment plant	0.0365 mg/l
	Fresh water sediment	0.0162 mg/kg
	Marine sediment	0.00162 mg/kg
	Soil	0.4053 mg/kg

## 8.2 Exposure controls

### Personal protective equipment

Eye/face protection : Safety glasses with side-shields conforming to EN166

#### Hand protection

Material : Protective gloves complying with EN 374.

Break through time : > 60 min

Protective index : Class 3

Material : Nitrile rubber

Glove thickness : 0.4 mm

Material : butyl-rubber

Glove thickness : 0.5 mm

Remarks : The choice of an appropriate glove does not only depend on its material but also on other quality features and is different from one producer to the other. The exact break through time can be obtained from the protective glove producer and this has to be observed.

Skin and body protection : Chemical resistant protective clothing according to DIN EN 13034 (Type 6)  
Work uniform or laboratory coat.

Respiratory protection : If product forms vapours or aerosols wear breathing protection.

Filter type : Particulates type (P)

Protective measures : When using do not eat, drink or smoke.  
Wash hands before breaks and at the end of workday.  
Follow the skin protection plan.

## SECTION 9: Physical and chemical properties

### 9.1 Information on basic physical and chemical properties

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Physical state	:	liquid
Colour	:	yellow
Odour	:	amine-like
Melting point/ range	:	-2 °C
Boiling point/boiling range	:	> 100 °C
Upper explosion limit / Upper flammability limit	:	not determined
Lower explosion limit / Lower flammability limit	:	not determined
Flash point	:	Not applicable
Auto-ignition temperature	:	not determined
pH	:	9.0 (20 °C) (undiluted)
Viscosity		
Viscosity, dynamic	:	6 mPa*s (20 °C)
Viscosity, kinematic	:	similar to water
Solubility(ies)		
Water solubility	:	completely soluble
Partition coefficient: n-octanol/water	:	Not applicable
Vapour pressure	:	23 hPa (20 °C) Information taken from reference works and the literature.
Density	:	1.18 g/cm <sup>3</sup> (20 °C) Method: DIN 51757
Relative vapour density	:	not determined

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### 9.2 Other information

Explosives : no explosion risk

Metal corrosion rate : Not corrosive to metals

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## SECTION 10: Stability and reactivity

### 10.1 Reactivity

No decomposition if stored and applied as directed.

### 10.2 Chemical stability

Stable under recommended storage conditions.

### 10.3 Possibility of hazardous reactions

Hazardous reactions : No dangerous reaction known under conditions of normal use.

### 10.4 Conditions to avoid

Conditions to avoid : No decomposition if used as directed.

### 10.5 Incompatible materials

Materials to avoid : None known.

### 10.6 Hazardous decomposition products

No data available

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## SECTION 11: Toxicological information

### 11.1 Information on hazard classes as defined in Regulation (EC) No 1272/2008

#### Acute toxicity

Not classified due to lack of data.

#### Product:

Acute oral toxicity : LD50 (Rat): > 2,500 mg/kg

Acute dermal toxicity : LD50 (Rat): > 2,000 mg/kg

#### Components:

#### **Sodium-dimethyldithiocarbamate:**

Acute oral toxicity : LD50 (Rat): > 2,500 mg/kg

Acute dermal toxicity : LD50 (Rat): > 5,000 mg/kg

#### **Skin corrosion/irritation**

Not classified due to lack of data.

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## **Serious eye damage/eye irritation**

Not classified due to lack of data.

## **Respiratory or skin sensitisation**

### **Skin sensitisation**

Not classified due to lack of data.

### **Respiratory sensitisation**

Not classified due to lack of data.

## **Germ cell mutagenicity**

Not classified due to lack of data.

## **Carcinogenicity**

Based on available data, the classification criteria are not met.

### **Product:**

Carcinogenicity - Assessment : Not classifiable as a human carcinogen.

## **Reproductive toxicity**

Not classified due to lack of data.

### **STOT - single exposure**

Not classified due to lack of data.

### **STOT - repeated exposure**

Not classified due to lack of data.

## **Aspiration toxicity**

Not classified due to lack of data.

## **11.2 Information on other hazards**

### **Endocrine disrupting properties**

#### **Product:**

Assessment : This substance/mixture does not contain components considered to have endocrine disrupting properties for human health according to UK REACH Article 57(f),

### **Further information**

#### **Product:**

Remarks : Health injuries are not known or expected under normal use.

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## **SECTION 12: Ecological information**

### **12.1 Toxicity**

#### **Components:**

##### **Sodium-dimethyldithiocarbamate:**

Toxicity to fish : LC50 (Oncorhynchus mykiss (rainbow trout)): 0.76 mg/l  
Exposure time: 96 h



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Toxicity to daphnia and other aquatic invertebrates	:	EC50 (Daphnia magna (Water flea)): 0.67 mg/l Exposure time: 48 h
Toxicity to algae/aquatic plants	:	EC50 (Pseudokirchneriella subcapitata (green algae)): 0.25 mg/l Exposure time: 72 h
Toxicity to microorganisms	:	EC10 (activated sludge): 0.25 mg/l Exposure time: 3 h
M-Factor (Chronic aquatic toxicity)	:	1

### 12.2 Persistence and degradability

**Product:**

Biodegradability	:	Biodegradation: 67 % Exposure time: 28 d Method: OECD Test Guideline 301D Remarks: Readily biodegradable.
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### 12.3 Bioaccumulative potential

**Product:**

Bioaccumulation	:	Remarks: No data available
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### 12.4 Mobility in soil

**Product:**

Mobility	:	Remarks: No data available
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### 12.5 Results of PBT and vPvB assessment

**Product:**

Assessment	:	This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.
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### 12.6 Endocrine disrupting properties

**Product:**

Assessment	:	This substance/mixture does not contain components considered to have endocrine disrupting properties for environment according to UK REACH Article 57(f).
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### 12.7 Other adverse effects

**Product:**

Additional ecological information	:	Do not flush into surface water or sanitary sewer system.
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## SECTION 13: Disposal considerations

### 13.1 Waste treatment methods

- Product : Do not let product enter drains.  
Do not dispose of with domestic refuse.  
Waste codes should be assigned by the user, preferably in discussion with the waste disposal authorities.
- Contaminated packaging : Dispose of in accordance with local regulations.
- Waste Code : Waste codes should be assigned by the user, preferably in discussion with the waste disposal authorities.

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## SECTION 14: Transport information

### 14.1 UN number or ID number

- ADR : UN 3082
- RID : UN 3082
- IMDG : UN 3082
- IATA : UN 3082

### 14.2 UN proper shipping name

- ADR : ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.  
(Sodium-dimethyldithiocarbamate)
- RID : ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.  
(Sodium-dimethyldithiocarbamate)
- IMDG : ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.  
(Sodium-dimethyldithiocarbamate)
- IATA : Environmentally hazardous substance, liquid, n.o.s.  
(Sodium-dimethyldithiocarbamate)

### 14.3 Transport hazard class(es)

- |      | Class | Subsidiary risks |
|------|-------|------------------|
| ADR  | : 9   |                  |
| RID  | : 9   |                  |
| IMDG | : 9   |                  |
| IATA | : 9   |                  |

### 14.4 Packing group

- ADR  
Packing group : III  
Classification Code : M6

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Hazard Identification Number : 90  
Labels : 9  
Tunnel restriction code : (-)

### RID

Packing group : III  
Classification Code : M6  
Hazard Identification Number : 90  
Labels : 9

### IMDG

Packing group : III  
Labels : 9  
EmS Code : F-A, S-F  
Remarks : "IMDG-Code segregation group not applicable".

### IATA (Cargo)

Packing instruction (cargo aircraft) : 964  
Packing instruction (LQ) : Y964  
Packing group : III  
Labels : Miscellaneous Dangerous Goods

### IATA\_P (Passenger)

Packing instruction (passenger aircraft) : 964  
Packing instruction (LQ) : Y964  
Packing group : III  
Labels : Miscellaneous Dangerous Goods

## 14.5 Environmental hazards

### ADR

Environmentally hazardous : no

### RID

Environmentally hazardous : no

### IMDG

Marine pollutant : yes

## 14.6 Special precautions for user

The transport classification(s) provided herein are for informational purposes only, and solely based upon the properties of the unpackaged material as it is described within this Safety Data Sheet. Transportation classifications may vary by mode of transportation, package sizes, and variations in regional or country regulations.

## 14.7 Maritime transport in bulk according to IMO instruments

Not applicable for product as supplied.

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## SECTION 15: Regulatory information

### 15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture

Relevant EU provisions transposed through retained EU law

UK REACH List of restrictions (Annex 17) : Conditions of restriction for the fol-

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	lowing entries should be considered: Number on list 3
UK REACH Candidate list of substances of very high concern (SVHC) for Authorisation	: Not applicable
The Persistent Organic Pollutants Regulations (retained Regulation (EU) 2019/1021 as amended for Great Britain)	: Not applicable
Regulation (EC) on substances that deplete the ozone layer	: Not applicable
UK REACH List of substances subject to authorisation (Annex XIV)	: Not applicable
GB Export and import of hazardous chemicals - Prior Informed Consent (PIC) Regulation	: Not applicable

### 15.2 Chemical safety assessment

A Chemical Safety Assessment is not required for this substance.

## SECTION 16: Other information

### Full text of H-Statements

H410 : Very toxic to aquatic life with long lasting effects.

### Full text of other abbreviations

Aquatic Chronic : Long-term (chronic) aquatic hazard

ADN - European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways; ADR - Agreement concerning the International Carriage of Dangerous Goods by Road; AIIIC - Australian Inventory of Industrial Chemicals; ASTM - American Society for the Testing of Materials; bw - Body weight; CLP - Classification Labelling Packaging Regulation; Regulation (EC) No 1272/2008; CMR - Carcinogen, Mutagen or Reproductive Toxicant; DIN - Standard of the German Institute for Standardisation; DSL - Domestic Substances List (Canada); ECHA - European Chemicals Agency; EC-Number - European Community number; ECx - Concentration associated with x% response; ELx - Loading rate associated with x% response; EmS - Emergency Schedule; ENCS - Existing and New Chemical Substances (Japan); ErCx - Concentration associated with x% growth rate response; GHS - Globally Harmonized System; GLP - Good Laboratory Practice; IARC - International Agency for Research on Cancer; IATA - International Air Transport Association; IBC - International Code for the Construction and Equipment of Ships carrying Dangerous Chemicals in Bulk; IC50 - Half maximal inhibitory concentration; ICAO - International Civil Aviation Organization; IECSC - Inventory of Existing Chemical Substances in China; IMDG - International Maritime Dangerous Goods; IMO - International Maritime Organization; ISHL - Industrial Safety and Health Law (Japan); ISO - International Organisation for Standardization; KECI - Korea Existing Chemicals Inventory; LC50 - Lethal Concentration to 50 % of a test population; LD50 - Lethal Dose to 50% of a test population (Median Lethal Dose); MARPOL - International Convention for the Prevention of Pollution from Ships; n.o.s. - Not Otherwise Specified; NO(A)EC - No Observed (Adverse) Effect Concentration; NO(A)EL - No Observed (Adverse) Effect Level; NOELR - No Observable Effect Loading Rate; NZIoC - New Zealand Inventory of Chemicals; OECD - Organization for Economic Co-operation and Development; OPPTS - Office of Chemical Safety and Pollution Prevention; PBT - Persistent, Bioaccumulative and Toxic substance; PICCS - Philippines Inventory of Chemicals and Chemical Substances; (Q)SAR - (Quantitative) Structure-Activity Relationship

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tative) Structure Activity Relationship; REACH - Regulation (EC) No 1907/2006 of the European Parliament and of the Council concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals; RID - Regulations concerning the International Carriage of Dangerous Goods by Rail; SADT - Self-Accelerating Decomposition Temperature; SDS - Safety Data Sheet; SVHC - Substance of Very High Concern; TCSI - Taiwan Chemical Substance Inventory; TECI - Thailand Existing Chemicals Inventory; TRGS - Technical Rule for Hazardous Substances; TSCA - Toxic Substances Control Act (United States); UN - United Nations; vPvB - Very Persistent and Very Bioaccumulative

### Further information

Other information

: The information provided is based on our current knowledge and experience and apply to the product as delivered. Regarding the product properties, these are not guaranteed. The delivery of this safety datasheet does not free the recipient of the product from his own responsibility to follow the relevant rules and regulations concerning this product.

The product is classified and labelled in accordance with EC directives or respective national laws.

Regional or national implementations of GHS may not implement all hazard classes and categories.

Guideline on the Restriction of the Use of Certain Hazardous Substances in Electrical and Electronic Equipment (RoHS) : no component is listed

No PFAS are consciously added to the product concerning the restriction proposal for inclusion to REACH (Annex XVII).

### Classification of the mixture:

Aquatic Chronic 1

H410

### Classification procedure:

Calculation method

GB / EN